

REMARKS

INFORMATION DISCLOSURE STATEMENT

The Information Disclosure Statement filed September 9, 2003 was objected to because it did not include a concise explanation of the relevance of each patent listed that is not in the English language. Being filed concurrently herewith is an explanation of the relevance of references JP 5-172331 and JP 2001-263093.

SPECIFICATION AND ABSTRACT

The specification has been amended as required by the Examiner as well as to correct certain other inadvertent errors. The Abstract has been amended to delete "SELECTED FIGURE: FIG. 1."

DRAWINGS

Being submitted concurrently herewith are corrected drawings for Figs. 1, 3, 4 and 10, already approved in the parent application. These corrected drawings satisfy the Examiner's objections to the drawings.

CLAIM REJECTIONS UNDER 35 U.S.C. §102

Claim 15 was rejected under 35 U.S.C. § 102(b) as being anticipated by Ansart et al. for the reasons set forth on page 3 of the Action.

Claim 15 has been amended in a manner that is believed to overcome this rejection.

For the reasons set forth hereafter, it is submitted that claim 15, as amended, is patentable.

ALLOWABLE SUBJECT MATTER

Claims 12 to 14 were allowed. Claim 12, however, has been amended merely to correct a typographical error.

PATENTABILITY OF THE CLAIMS

With respect to the rejection of claim 15 as being anticipated by Ansart et al., claim 15 has been amended to further define the air holes as "being arranged in a combustion wall surface." The amendment to claim 15 is supported on page 6, lines 13-19 of the specification.

In the present invention, as defined in claim 15, the air holes are arranged in the combustion chamber wall surface so that the fuel and the air are jetted into the combustion chamber as a plurality of coaxial flows, whereby the coaxial

jet flows of the fuel and the air are jetted directly into the combustion chamber.

In Ansart et al., a coaxial flow of fuel and the air is supplied in a premixing chamber, and premixed fuel air is jetted into the combustion chamber. That is, in the present invention as defined in claim 15, the air holes are arranged in the combustion chamber wall surface so that the fuel and the air are jetted into the combustion chamber as a plurality of coaxial flows, while in Ansart et al. the air holes corresponding to the present invention are not arranged in the combustion chamber wall surface. Rather after fuel and air are premixed as a gas, it is jetted into the combustion chamber. Ansart et al. has the possibility that backfire may occur because of the existence of the premixing chamber.

In the present invention, as defined in claim 15, the fuel nozzles jet fuel into the combustion chamber and the air holes jet air into the combustion chamber. The air holes are arranged in the combustion chamber wall surface so that the fuel and the air are jetted into the combustion chamber as a plurality of coaxial flows, a plurality of the fuel nozzles and a plurality of the air holes are formed as one module, and a plurality of the modules are arranged, so that after the fuel flows into the combustion chamber, the fuel mixes with

ambient coaxial air before the fuel really contacts with a high temperature gas and starts to burn, and the fuel burns after the fuel has become a pre-mixture of a suitable mixing ratio. Therefore, it is possible to suppress backfire and burning loss. Since the present invention is a combustor construction in which backfire and burning loss are suppressed, it becomes possible to supply fuel to only one or some parts of the system and make the concentration of fuel locally excessively high at a turbine starting time or at a partial load operation time, and it is possible to increase flexibility in the case where operation is conducted by making the combustor into modules.

In Ansart et al., the air holes are not arranged in the combustion chamber wall surface so that the fuel and the air are jetted into the combustion chamber as a plurality of coaxial flows, but the air holes are arranged in a front side wall surface of the premixing chamber arranged upstream of the combustion chamber. Since the fuel and the air are premixed in the premixing chamber, there is a possibility of a backfire and burning loss in the premixing chamber. With the above-mentioned construction, it is impossible to supply fuel to only a part of the system and create a condition of locally excessively high concentration of fuel. Therefore, in Ansart

et al., there is a greater restriction when an operation is performed by making the combustor into modules.

As mentioned above in Ansart et al., the air holes are not arranged in the combustion chamber wall surface so that the fuel and the air are jetted into the combustion chamber as a plurality of coaxial flows as in the present invention. Accordingly, the effect of the present invention cannot be attained. Thus, the present invention, as now defined in claim 15, differs from Ansart et al. and is patentable thereover.

In view of the foregoing amendments and remarks, Applicants contend that this application is in condition for allowance. Accordingly, reconsideration and reexamination are respectfully requested.

Respectfully submitted,



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